Advance Praise for

*State of the World 2014: Governing for Sustainability*

“This volume offers a variety of informed and often passionate voices on the interface of environmental degradation and risk with conceptions and models of governance that, if we can summon the will, would promote sustainable management of the global commons. A clear, lively, thought-provoking book, which serves well as a reasoned call to action.”

—David M. Malone, Rector of the United Nations University

“Achieving sustainable ways of living is inextricably linked to how we organize work in the future. *State of the World 2014* makes an important contribution by illustrating how trade unions, far from being outdated, will be at the forefront of a just transition. It is a challenging compilation—coming at exactly the right time.”

—Sharan Burrow, General Secretary of the International Trade Union Confederation

“For thirty years, the *State of the World* report has helped to map the gathering and then accelerating storm of environmental, climate, and resource crises. Identifying itself firmly with the collective interest of humanity as a whole living in harmony with nature, the annual report has sought to balance authoritative reporting of the increasingly bleak health of the environment with sustainable pathways out of the accumulating crises. In a world of competing sources of authority and power, the pursuit of atomized individual and national self-interests will court planetary disaster. This year’s *State of the World* report has its focus on governance: how, in a world without world government, we can and must make enforceable rules for using finite resources democratically, equitably and, above all, sustainably, with fallible governments and imperfect markets working together for the common good.”

—Ramesh Thakur, The Australian National University, Editor-in-Chief, *Global Governance*

*State of the World 2014* can be read as a ‘State of the Wealth’ report. Never before has wealth commanded so much power or been so concentrated—even to the point of threatening civilized life. Wealth becomes unable to offer, not just a better future, but any future. Therein lies its weakness and the hope that the major governance shift that sustainability requires can be brought about.”

—Roberto Bissio, Coordinator of Social Watch

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In early November 2013, Typhoon Haiyan struck the Philippines, the strongest cyclone to make landfall in recorded history. It killed thousands of people, displaced more than 4 million, and left 2.5 million in need of food aid. Hitting just before the round of climate negotiations known as the 19th Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC), it was yet another reminder of the climate-charged superstorms and other disasters that lie in store if countries do not act with due haste to reduce greenhouse gas emissions. It prompted the Philippines’ chief negotiator at COP 19, Yeb Sano, to announce that he would fast until conference participants made “meaningful” progress.1

Cold, hard data reinforce the sense that humanity is at an unprecedented crossroads that requires a sharp departure from politics and business as usual. In 2012, global emissions of carbon dioxide (CO2) from fossil fuel burning and cement production climbed to a new peak of 9.7 billion tons, and they were projected to reach 9.9 billion tons in 2013. The 2.7 percent average annual increase in emissions during 2003–12 was almost triple the rate of the previous decade. In early 2013, the concentration of CO2 in the earth’s atmosphere for the first time crossed the threshold of 400 parts per million.2 The chances of limiting global temperature increases to 2 degrees Celsius (3.6 degrees Fahrenheit) within this century are “swiftly diminishing,” in the judgment of Achim Steiner, executive director of the United Nations Environment Programme. This goal was endorsed by governments in 2010 as a “safe” maximum to avoid the worst consequences, although some regard it as still too high. Yet under current government policies, global greenhouse gas emissions still will be 8 to 12 billion tons higher than the maximum allowable in 2020, likely leading to a warming of 3.7 degrees Celsius or worse. The International Energy Agency (IEA) projects that current policies could raise temperatures by as much as 6 degrees Celsius.3

Although governments pay lip service to the goal of keeping climate
change within tolerable limits, they have fallen far short of needed action in many ways. International climate governance has been marked by increased wheel spinning in recent years, and policies in several countries now represent a weakening of earlier commitments. An analysis by Climate Action Tracker warns of a “major risk of downward spiral in ambition, a retreat from action and recarbonization of the energy system.”

Recent actions by Australia’s new government, for example, could cause that country’s greenhouse gas emissions to increase 12 percent by 2020 (instead of being reduced 5 percent from 2000 levels, as pledged earlier). Japan abandoned its 2020 target for cutting national emissions to 25 percent below 1990 levels in favor of a much less ambitious cut of 3.8 percent. Canada barrels ahead in developing its carbon-intensive tar sands deposits. And the Polish government opted to welcome an “international coal and climate summit” staged by the World Coal Association at the very same time that it hosted the most recent round of international climate talks. For the climate conference itself, Poland accepted corporate sponsorship from leading car manufacturers, oil companies, builders of coal power plants, and steel manufacturers.

Climate change is certainly not the only factor undermining sustainability, but no other phenomenon carries such risks to the survival of planetary civilization. Climate change interacts with and exacerbates many other issues of concern for environmental integrity and human well-being—such as water availability and food production, biodiversity, health, disaster protection, and employment. It has far-reaching socioeconomic and political implications. The international governance processes for climate protection and for sustainable development (the Rio+20 conference and its aftermath) proceed largely on separate tracks, but the year 2015 will be a key milestone for both of them.

**Climate Policy’s Tower of Babel**

Environmentalists have long clung to the belief that science would drive government action on climate change and other global environmental challenges. This flows from an assumption that the picture that emerges is so self-evident and compelling that no one could seriously dispute the need for action. Yet, as Monty Hempel points out in Chapter 4 of this book, knowledge alone is not enough, and indeed things have turned out differently.

For one, climate science is so complex that it is far from easily communicated to the general public. Scientific consensus-building naturally tends to err on the side of caution and understatement. In a 2012 commentary, Kevin Anderson and Alice Bows argue that climate change scenarios all too often are subjugated to orthodox economic views that regard unimpeded growth as the inviolable goal: “When it comes to avoiding a 2°C rise [in average
global temperatures], ‘impossible’ is translated into ‘difficult but doable’, whereas ‘urgent and radical’ emerge as ‘challenging’—all to appease the god of economics (or, more precisely, finance).” With the exception of outspoken individuals like James Hansen—who served as head of NASA’s Goddard Institute for Space Studies until 2013—most scientists have been reluctant to engage in the fierce, polarized political debates of how society should respond to distressing scientific findings.6

Meanwhile, a well-oiled machinery of climate denialists has managed to sow doubt (or worse) about the ever-strengthening climate science consensus, helping to reassure those whose inclination is to disbelieve the science. At a time of global economic crisis, denialists have been able to stoke fears among the general public that sustainability policies are at odds with concerns about jobs and incomes. Such efforts have been amplified by a media that often perpetuates a false equivalency between climate scientists and “skeptics.”7

If the science of climate change is hard to comprehend, so is the human process that has emerged over the last two decades around efforts to address it. The structures and processes under the UN’s climate regime are largely indecipherable to the majority of the people on this planet. A veritable climate-speak Tower of Babel has arisen, replete with a proliferating number of acronyms that range from AAUs, AWG-LCA and AWG-KP to CDM, CERs, and GCF; from LULUCF, NAMAs and NAPAs to QELROs, REDD and REDD+; and on to RMUs, SBSTA, and SD-PAMs—to name only a few. The UNFCCC’s own glossary of acronyms comprises more than 180 entries.8

Clearly, negotiations among the world’s 189 member states that are party to the UN climate convention, as well as the various regional or interest groups with which they align, are by their nature a complex undertaking. Although not as large as the environmental mega-summits such as the 1992 Rio Earth Summit and 2012’s Rio+20, the annual high-level climate conferences have become massive gatherings. The first COP, held in Berlin in 1995, drew 1,925 participants (not counting media representatives). By 2013, the number of participants registered to attend COP 19 in Warsaw had expanded almost ninefold, to 9,135. Media interest, however, shrank dramatically, falling from 2,044 journalists attending in 1995 to 971 in 2013.9
A more fundamental problem than the sheer numbers is the politics that is driving—or more often, blocking—the climate talks. Relative to the massive carbon reductions needed, two decades of international climate negotiations have yielded precious little in the way of tangible progress, but plenty of frustration. In 2009, the high expectations for COP 15 in Copenhagen, Denmark, led climate activists to speak of “Hopenhagen.” But following the sobering failure that ensued, “Nopenhagen” became the more apt moniker, leading to searching questions about whether the following year’s meeting in Cancún, Mexico, would be a “Can-cún” or “Can’t-cún.” Word play aside, the deadlock on key issues has persisted. In effect, the negotiators keep kicking the problem farther down the road, always in the hope that the success that eludes them one year might come within reach the next year.¹⁰

Various forces have prevented greater success. A recent analysis indicates that the top fossil fuel-producing countries hold 25–30 percent of the high-level (officer) posts in the bodies of the UN climate convention, a disproportionate share given that these countries account for only 16 percent of UNFCCC members. Since 2009, coal exporters have been particularly well represented.¹¹

Although individual country positions vary, industrialized countries on the whole have been unwilling to abandon their materials-intensive and wasteful lifestyles, whereas emerging economies are intent on avoiding any mandatory commitments that could block their chance of emulating the West’s consumerist model. There is much inertia, and outright resistance, from various sides to a meaningful and binding carbon reduction agreement, and it comes foremost at the expense of the most vulnerable and poorest countries.

The United States, historically the largest carbon polluter, insists on the kind of “flexibility” that is poison for a binding global climate treaty. Speaking at London’s Chatham House in October 2013, U.S. Special Envoy for Climate Change Todd Stern said that “rather than negotiated targets and timetables, we support a structure of nationally determined mitigation commitments, which allow countries to ‘self-differentiate’ by determining the right kind and level of commitment, consistent with their own circumstances and capabilities.” (See Chapter 11 by Petra Bartosiewicz and Marissa Miley for an account of the failure to establish a more aggressive U.S. policy.)¹²

China’s leaders stake their legitimacy on providing a steady and growing flow of goods and services for a population that has no real say in political decision making. They are opposed to any international agreement that would impede the country’s economic growth. Yet China’s unprecedented pace of economic expansion has translated not only into skyrocketing CO₂ emissions, but also into an environmental devastation and threat to pub-
lic health that increasingly is becoming the main rallying cry of domestic popular activism. (See Chapter 12 by Sam Geall and Isabel Hilton.)

**Confronting Petro-Power**

If runaway climate change is to be avoided, a global pact to leave the bulk of the world’s proven fossil fuel reserves in the ground is indispensable. The currently proven reserves of oil, natural gas, and coal contain about 3 trillion tons of CO₂. Two-thirds or more of this can never be touched if there is to be any hope of avoiding a destabilized climate. Yet this climate reality runs headlong into a global capitalist economy whose *raison d’être* is endless growth and that therefore demands an ever-expanding flow of energy.

The additional fossil fuel extraction capacity represented in such forms of “extreme energy” as tar sands, Arctic and deepwater deposits, shale oil and gas (unlocked through hydraulic fracturing or “fracking” technology), and mountaintop-removal coal will lock society into an unsustainable energy system for decades to come. The 2012 exploration and development expenditures of 200 fossil fuel companies listed on stock exchanges worldwide are estimated at $674 billion. (This compares with renewable energy investments of $244 billion the same year.) Global exploration and production spending for oil and gas has increased 2.4-fold since 2000, and the IEA projects that by 2035, a cumulative $14.7 trillion may be spent for such purposes, with another $3.1 trillion for refining and distribution—triple the projected spending on renewables.

Fossil fuel companies have every incentive to extract as much as possible of the extremely valuable reserves they have on their books. Leaving the bulk of the world’s fossil fuel deposits untouched will require quasi-revolutionary change. Nothing like this has ever been attempted in human history, and it likely will require a combination of regulation, litigation, shareholder activism, and dogged divestment and civil disobedience campaigns. Any such effort runs fundamentally counter to the interests of powerful and politically well-connected companies—not just the fossil fuel producers themselves, but also carbon-intensive sectors such as power utilities, motor vehicle manufacturers, and the petrochemical industry. (To overcome such opposition, there will need to be some sort of compensation or other transition arrangement, although this is too complex an issue to be addressed here.)

A recent analysis by Richard Heede found that just 81 private and state-owned corporations are responsible for about 40 percent of cumulative carbon emissions since the start of the Industrial Revolution, while 9 centrally planned states contributed another 21 percent. (See Table 1–1.) In 2012, just 25 companies were behind 58 percent of worldwide “upstream” oil and gas investments. These include privately owned companies such as Exxon-
Mobil, Chevron, Royal Dutch Shell, and BP, as well as wholly or partially state-owned firms such as Petrochina, Brazil’s Petrobras, Russia’s Gazprom, Mexico’s Pemex, and Norway’s Statoil.15

It is no secret that these private firms act solely at the behest of a narrow class of shareholders. The state-owned firms at least nominally serve a broader public interest; in many countries, nationalization was an outcome of historic power struggles over who benefits from the extraction of fossil fuels. Still, state ownership does not necessarily translate into policies in the public interest. State companies may be run in ways that are functionally no different than private companies. Or they may be controlled by unrepresentative regimes that channel revenues into repression or corrupt practices, as Evan Musolino and Katie Auth write in Chapter 17. Fossil fuel revenues can be used responsibly, as Norway has shown. But the full costs of climate change will eventually surpass any benefits that may be derived from continued exploitation of fossil fuels.

It is worth noting that underlying and propping up this web of powerful corporate actors, whose interests so often clash with the public interest, are the wishes, desires, and buying power of hundreds of millions of people. The lure of consumerism (aided by massive advertisement spending) has proven to be almost irresistible around the planet, and many people define themselves more in terms of their material possessions than in terms of being active citizens.

Automobiles are a case in point. They remain one of humanity’s key status symbols and are often seen as an embodiment of freedom and individualism. Yet all but a tiny share of the world’s motor vehicles run on oil-derived

### Table 1–1. Carbon Emissions by Type of Entity, 1751–2010

<table>
<thead>
<tr>
<th>Entity</th>
<th>Cumulative Emissions</th>
<th>Share of Global Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Investor-owned corporations*</td>
<td>314.8</td>
<td>21.7</td>
</tr>
<tr>
<td>31 State-owned corporations</td>
<td>287.7</td>
<td>19.8</td>
</tr>
<tr>
<td>9 Nation-state carbon producers†</td>
<td>311.8</td>
<td>21.5</td>
</tr>
<tr>
<td>Subtotal</td>
<td>914.3</td>
<td>63.0</td>
</tr>
<tr>
<td><strong>Total, World</strong></td>
<td><strong>1,450.3</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

* Fossil fuel and cement producers.
† Current or former centrally planned states (includes the Soviet Union and post-Soviet Russia as two separate entities).
Source: See endnote 15.
fuels, and total vehicle registrations exceeded 1 billion (for the first time) in 2010. Not only does this vast and growing fleet represent enormous ongoing demand for carbon-based fuels, but it is also a critical factor in locking society onto a dangerous energy path. The vehicle fleet turns over very slowly (every 12–15 years in the United States, and even more slowly during recessions), so that consumer choices and buying behavior embed a great deal of capital in vehicles and the infrastructure that accompanies them, committing society to their long-term use.16

Markets to the Rescue?

Fighting the interests of fossil fuel companies is a colossal undertaking, not least because we live in an era in which corporations and markets are seen as near-sacrosanct forces. A laissez-faire attitude often described as neoliberalism has prevailed. Deregulation and privatization have heralded an increasingly globalized economy and the emergence of globe-spanning corporations whose influence and power often trumps that of governments, communities, and labor unions.

The view that government is the problem and private markets are the solution has carried over into the design of environmental policy. Governments, academics, and many mainstream environmental groups have put considerable hope into the assumption that, with the proper signals, markets would ride to the rescue and drive a clean economy transition. Specifically, this has found expression in proposals for carbon markets and so-called cap-and-trade systems. In principle, the idea of imposing a cap on emissions and of putting a price on carbon is sensible. The actual manner in which this has been implemented—specifically the European Union’s Emissions Trading System (EU ETS), which had 88 percent of the world’s carbon trading volume in 2012—raises fundamental questions about whether salvation will be found solely in market-based mechanisms.17

ETS carbon prices have nosedived repeatedly. In the scheme’s first phase (2005–07), prices plummeted from a peak of around €30 ($38.70) per ton in April 2005 to a mere €0.10 ($0.14) per ton in September 2007. This was due largely to an overly generous allocation of emission allowances and exemptions—itself the product of industry lobbying clout. Although the EU insisted that it was learning by doing, the experience was replicated in the second phase, when prices once again collapsed, from about €25 ($36.75) per ton in 2008 to between €5 and €10 ($6.40–12.80) per ton in 2012. Prices stayed below €5 ($7) per ton during 2013, and absent regulatory intervention, analysts expect that they will remain low for the entire third phase (2013–20). Johannes Teyssen, the CEO of Germany’s largest utility E.ON, commented in 2012, “I don’t know a single person in the world that would invest a dime based on ETS signals.” Fixing the system—if it can be fixed—
would require dramatically reducing the supply of carbon certificates and lowering the overall cap on emissions.\(^{18}\)

As national or regional emissions trading schemes are being adopted elsewhere around the globe—most recently in China and Mexico—fundamental governance lessons from the EU ETS experience need to be taken to heart. As a recent Climate Action Tracker report argues, “The new systems yet have to prove that their implementation will actually reduce emissions.” Fresh thinking also needs to be applied to related approaches such as the Clean Development Mechanism. A recent examination by Germany’s *Der Spiegel* likened this approach, under which rich polluters have bought often questionable or even fraudulent carbon “offsets” in poorer countries, to the selling of indulgences. It is a practice that keeps carbon markets flooded with certificates and prices low.\(^ {19}\)

Market-based mechanisms such as carbon trading seem to relieve governments of the difficult political decisions needed to alter unsustainable production and consumption structures. Trading of emission permits, for example, allows governments to avoid imposing a politically unpopular carbon tax. Yet carbon markets cannot possibly function without the kinds of extensive rules and regulations that have come to be excoriated as “command-and-control” policies. And there are other governance-related reasons for skepticism. Emissions trading favors—and often enriches—a “carbon priesthood” of corporations, traders, and financiers. The arcane nature of such systems prevents meaningful public engagement.

Moreover, the dogma of market worship has marginalized a large body of knowledge about the management of common-pool resources that points to the fruitful possibilities of controlling global carbon pollution by managing the atmosphere as a commons. This work—which for general audiences emerged into the light of day only when a major scholar of commons management, political economist Elinor Ostrom, won the 2009 Nobel memorial prize in economics—soundly refutes the argument that privatization of common resources such as the atmosphere’s waste-absorption capacity is the preferred, or only, way to address the problem. (See Chapter 2 by D. Conor Seyle and Matthew Wilburn King and Chapter 9 by David Bollier and Burns Weston for more on Ostrom’s work.)

Since Adam Smith, economists have argued that markets, even though driven by selfish, short-term motivations to maximize private gain, ultimately serve the public interest. This view springs from an idealized set of exchanges that assumes that all players have the same information and that markets will eventually self correct. But it conveniently overlooks the fact that some market players grow to become far more powerful than others. Markets do not have a social conscience, environmental ethic, or long-term vision, and therefore market dynamics and the public interest do not
necessarily align. Although market tools could incentivize companies to go beyond the minimum of meeting a particular law or regulatory standard, markets as such are a poor arbiter of processes that decide whether civilization thrives or perishes.

**Making Democracy Safe for Markets**

For all the governance faults one can find in the political sphere—whether it be the sclerosis of bureaucracies or the lack of vision among those holding elected office—governance of the economic sphere is not even nominally democratic, and thus suffers from a basic defect. Market signals and impulses increasingly make business leaders slaves to the quarterly bottom line, irrespective of whether that bottom line is congruent with a company’s, let alone society’s, longer-term well-being. Businesses increasingly regard labor as a cost item to be minimized, driving a relentless process of automation and putting pressure on employment and wages. Yet gains in labor productivity are less and less shared with the workforce. Sidelining social and environmental factors by relegating them to the status of “externalities,” as economists are trained to do, is equivalent to shutting one’s eyes to realities that one prefers not to see.

This narrow, short-term view is reinforced by the demands of a bloated finance sector. Thomas Palley (Chapter 16) writes that the rising influence of finance has been an engine of an economy that gobbles up growing amounts of scarce resources even as it distributes the product in ever more unequal ways. The result is vast wealth gaps, which have given rise to the notion of the 1 percent versus the 99 percent. A key task will be to govern the finance sector in ways that facilitate the transition to a more equitable and sustainable economy and to inject a greater degree of accountability into the private sector.

Collective bargaining and related structures (including the so-called works councils that represent worker interests at factories in several European countries) historically have been among the tools to introduce at least a modicum of democracy in the workplace, and have been essential for raising wages. But these processes have weakened as union representation has declined in countries where it once was strong (while it never gained much of a foothold in other countries). Aided by globalization, multinational corporations are able to force concessions from labor and from governments alike; workers often accept wage or benefit cuts for fear of jobs being moved offshore; local, regional, and national governments vie for industries by offering big tax giveaways or other “sweeteners.”

Governance in the economic sphere—determining what gets produced, how, and who benefits—has a powerful influence on society’s ability to achieve social and environmental sustainability. But economic governance
also carries over directly into the political sphere. The concentration of wealth and power essentially narrows the ranks of those with an effective voice in decision making and in public discourse. The drafting of legislation by lobbyists is not uncommon, for example, and there has long been a revolving door for people moving between positions in government and business. In Brussels, an estimated 15,000 lobbyists seek to influence European Union rule making, according to the Alliance for Lobbying Transparency and Ethics Regulation.20

The electoral and political decision-making processes of some countries (including the United States) have been captured by powerful interests opposed to decisive action for sustainability. This became clear during the fight over U.S. climate legislation in 2009. According to the Center for Responsive Politics, during 2009 the $22.4 million spent by pro-environmental groups on federal lobbying efforts was dwarfed by oil and gas industry expenditures of $175 million. The floodgates of private money influence were opened wide by the U.S. Supreme Court’s “Citizens United” ruling in 2010, which allowed unlimited political spending by corporations, associations, and trade unions. Political advocacy groups spent more than $300 million on the 2012 presidential campaign, up from $79 million during the previous election.21

A growing threat to democratic governance is also found in investor/state dispute-settlement clauses that are included in many bilateral investment treaties. These allow companies investing abroad to challenge a broad array of health, environmental, social protection, and other laws. Instead of applicable domestic courts, such claims are adjudicated via private dispute-settlement tribunals, where secretive panels of trade lawyers can overrule the will of parliaments. According to Corporate Europe Observatory, a Brussels-based watchdog group, more than 1,200 such treaties have been signed by member states of the EU alone.22

The number of claims for compensation brought by multinational corporations under such clauses keeps rising and involves billions of dollars. According to the UN Conference on Trade and Development, at least 62 new cases were initiated against host countries in 2012—the highest number ever filed in a single year. Cumulatively, the number of claims reached 518 as of May 2013, filed against 95 different countries. Of the 244 cases that
have been concluded so far, 42 percent were decided in favor of the state and 31 percent in favor of the investor, while another 27 percent were settled. Thus, corporations do not always win cases they initiate, but sometimes the mere threat of a claim or its submission has been enough for legislation to be abandoned or watered down. The Transnational Institute sees “a permanent tension between investor rights and public welfare interests.”

Beyond bilateral treaties, the North American Free Trade Agreement has been used extensively for bringing investor claims. But two multilateral treaties with broader reach are currently being negotiated. If passed, they will essentially be models for the rest of the world. These treaties—the Transatlantic Trade and Investment Partnership between the United States and the European Union, and the Trans-Pacific Partnership between the United States and countries in the Asia-Pacific region—are being negotiated in secret, shielded from public discussion and parliamentary scrutiny, even as corporate lobbyists are playing a key role. Like the existing bilateral treaties that enshrine investor-state dispute-settlement mechanisms, these new treaties would further limit the ability of governments to make rules in the public interest.

What Are Governments For?

Given the emphasis on market mechanisms and investor rights, it is easy to lose sight of the fact that the job of governments is...to govern. Governing means drawing up the rules by which society functions. These may entail both mandates and incentives, and the best policy is ultimately one that combines a rich repertoire of appropriate tools. There is a proper role for markets, too. But the voluntary measures that have been embraced so eagerly in recent years are increasingly at odds with the planetary climate and sustainability emergency.

A broad range of governmental actions can steer economies toward climate stability and environmental sustainability. This includes rising energy efficiency standards for industrial equipment, buildings, motor vehicles, and consumer goods. Binding emission limits are another option, such as proposed carbon pollution standards for U.S. power plants that would effectively rule out conventional coal units. In many instances, such policies already exist but need to be made more ambitious and stringent.

Government regulation and market mechanisms can be combined in imaginative ways, as Japan’s Top Runner program has shown since 1998. Efficiency standards for a wide range of products are set by committees composed of representatives from the manufacturing industry, trade unions, universities, and consumer organizations. They identify the most efficient model in a given product category. It becomes a baseline that all manufacturers must meet within 4–8 years, when the process is then repeated. This
approach drives continuous innovation but also provides time for lagging manufacturers to catch up or to invent an even more efficient product.26

Governments can contribute to greater sustainability by reorienting their own procurement budgets and infrastructure projects—for example, away from additional road building and toward public transport; away from sprawl and toward denser cities (which thereby tend to gain in livability).

Another field where government action is needed is in redirecting public financial streams from unsustainable to sustainable economic activities. This includes phasing out fossil fuel subsidies and ending financing by international development banks and national export credit agencies for fossil fuel projects. According to a preliminary analysis by the Natural Resources Defense Council, in just the 2007–13 period, the top four funders alone—Japan, the United States, Germany, and South Korea—have provided $37.7 billion for coal projects in developing countries. But Denmark, Finland, Iceland, Norway, Sweden, the United Kingdom, and the United States have now announced that they will no longer finance coal projects abroad.27

An often-overlooked and potentially promising trend with respect to functional government is the apparent shift of impetus for action on critical sustainability issues from national governments, which have often dithered, to local and regional governments. As Monika Zimmermann discusses in Chapter 14, in the last 20 years or so local governments have radically stepped up their organizing, cooperation, and degree of commitment to addressing issues such as climate change. It is perhaps no coincidence that local and regional governing bodies are both closer (in distance as well as in degree of bureaucratic separation) to the people and communities governed, and less likely to be captured by special interests.

**Governance from the Bottom Up**

Governmental structures and decision-making processes diverge widely by country, but the common challenge is how to imbue them with a greater degree of foresight, accountability, transparency, and responsiveness. Can humanity devise governance institutions and processes—both political and economic—that are able to overcome the barriers to greater sustainability? It is an empirical question that we will likely see answered in the coming years, as either we rise to the challenge or nature imposes something like sustainability upon us. John Gowdy, in Chapter 3, argues that there is in fact an evolutionary basis for the dilemma we seem to have backed ourselves into—which suggests that failing to devise institutions that can mitigate our worst genetic tendencies will take us down nature’s pathway to sustainability, with whatever costs and disruption to human civilization it sees fit to inflict.

Although global society has largely ignored them, for years there have been alternatives to the dominant worldview that the natural world is a plat-
form for living situated in a warehouse of resources that are ours for the
taking. Ecological economists and others repeatedly have made the case for
operating within Earth’s system limits. Other eloquent voices have urged
consideration of perspectives on the human place in the world that would
enable and support this mode of operation.

In Chapter 4, Monty Hempel asserts that teaching ecoliteracy, while
necessary, will not be enough by itself to achieve an Earth-centered world-
view; it will need to be combined with ethics training and appeals to ac-
tion. Richard Worthington cautions in Chapter 5 that we cannot rely on the
digitization of everything to solve the problems we face, absent concerted
action in other, especially political, spheres. And a trio of chapters, by Peter
Brown and Jeremy Schmidt (Chapter 6), Cormac Cullinan (Chapter 7), and
Antoine Ebel and Tatiana Rinke (Chapter 8), urge us to rein in our worst
tendencies in order to free up ecological space for the rest of creation, and
to expand the circle of stakeholders to include the voiceless: other creatures,
indigenous cultures, and youth and the generations to come.

David Bollier and Burns Weston (Chapter 9) urge that humanity infuse
ecological governance with a commons- and rights-based approach that is
anchored in laws and policies drawn up at the local and national scale. The
plodding pace of international talks on climate protection and sustainable
development has made many civil-society activists weary of a mismatch be-
tween promising rhetoric and paltry outcomes. Maria Ivanova (Chapter 13)
points to outcomes of the Rio+20 conference that are nonetheless signifi-
cant for shaping global governance in coming decades. It would be a mistake
for civil society to retreat from these processes, but Lou Pingeot (Chapter
15) cautions against the rising corporate influence on them.

In the face of governmental inertia and corporate capture of many
decision-making processes, strong and persistent bottom-up political pres-
sure is needed more than ever. It was grassroots mobilization under the ban-
nner of nationwide Earth Day celebrations that helped bring about landmark
U.S. laws such as the Clean Air Act and Clean Water Act in the early 1970s,
when the United States was an environmental policy pacesetter. But over
time, parts of the environmental movement have grown comfortable with
a more establishmentarian orientation that cherishes mainstream respect-
ability, ample funding, and access to the corridors of power. Chapter 11, by
Petra Bartosiewicz and Marissa Miley, explores how a small group of well-
funded mainstream environmental groups preferred an elite approach to
passing cap-and-trade legislation over grassroots mobilization—a strategy
that ultimately failed.

Elite environmentalism runs the danger of being disconnected from en-
vironmental justice perspectives driven by the devastating real-world im-
pacts on communities of mining projects, petrochemical plants, or other
toxic facilities sited near poor neighborhoods, or, for that matter, dubious green solutions such as large-scale biofuels plantations associated with land grabbing and displacement of small farmers. Aaron Sachs (Chapter 10) insists that we not lose sight of the injustices of today’s world when we worry about the coming storms and floods and heat waves in a future warmer world. Successful social movements throughout history, Sachs reminds us, have incorporated a strong sense of ethics.

Undoubtedly, new grassroots movements are emerging, and new energy is being unleashed—keeping true to the view that the whole point of civil society organizations is to be a thorn in the side of the powerful. This is part of a broader phenomenon of spreading popular protests driven by a range of grievances and demands—irrespective of the political governance system in question. A recent study analyzing 843 protests between January 2006 and July 2013 in 87 countries found a steady increase in protests from 59 in 2006 to 112 during just the first half of 2013. Many of the protests—ranging from marches and rallies to acts of civil disobedience—involves issues that are of relevance to a more sustainable and equitable society. The lack of “real democracy” is a major motivating factor and is seen as an underlying reason for the lack of economic and environmental justice. (See Table 1–2.)

Referring to what he calls an “emerging fossil fuel resistance,” Bill McKib-

<table>
<thead>
<tr>
<th>Category (total number of protests)</th>
<th>Selected Grievance or Demand</th>
<th>Number of Protests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Justice and Austerity (488)</td>
<td>Jobs, wages, labor conditions</td>
<td>133</td>
</tr>
<tr>
<td></td>
<td>Inequality</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>Agrarian/Land reform</td>
<td>49</td>
</tr>
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<td></td>
<td>Fuel and energy prices</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Food prices</td>
<td>29</td>
</tr>
<tr>
<td>Failure of Political Presentation (376)</td>
<td>Real democracy</td>
<td>218</td>
</tr>
<tr>
<td></td>
<td>Corporate influence, deregulation, privatization</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>Transparency and accountability</td>
<td>42</td>
</tr>
<tr>
<td>Global Justice (311)</td>
<td>Environmental justice</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>Global commons</td>
<td>25</td>
</tr>
<tr>
<td>Rights (302)</td>
<td>Commons rights</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Labor rights</td>
<td>62</td>
</tr>
</tbody>
</table>

Note: The report distinguishes among a total of 34 specific types of grievances/demands. Source: See endnote 28.
ben, founder of 350.org, observes that in the last few years a new grassroots movement “has blocked the construction of dozens of coal-fired power plants, fought the oil industry to a draw on the Keystone pipeline, convinced a wide swath of American institutions to divest themselves of their fossil fuel stocks, and challenged practices like mountaintop-removal coal mining and fracking for natural gas.”

The proposed Keystone XL pipeline, slated to carry Canadian tar sands to the Gulf of Mexico, has emerged as a lightning rod of resistance in the United States. Similarly, opposition by native peoples and others in British Columbia has put on hold the proposed Northern Gateway pipeline (intended to carry tar sands over a distance of 1,177 kilometers to an export terminal and eventually to Asian markets). Several planned coal export terminals in the Pacific Northwest also have drawn strong local opposition due to environmental and health concerns. In Europe, France and Bulgaria have banned fracking, and opposition to the controversial practice is rising in the United Kingdom. In the autumn of 2013, EU lawmakers provided initial approval of a measure requiring extensive environmental audits before fracking can go forward. In China, pollution may be the single largest cause of social unrest, as Sam Geall and Isabel Hilton explain in Chapter 12. Since 2007, waves of social unrest there have halted numerous large industrial and infrastructure projects.

Distributed Leadership

McKibben thinks that the new fossil fuel resistance movement is beginning to win some victories, “not despite its lack of clearly identifiable leaders” but rather “because of it.” Like the “distributed generation” system that renewable energy technologies enable, human society needs to develop forms of distributed leadership. Along these lines, McKibben sees greater value in a more dispersed opposition network than a highly centralized one that relies critically on the vision and actions of a small handful of leaders. He observes, “often the best insights are going to come from below: from people… whose life experience means they understand how power works not because they exercise it but because they are subjected to it.”

Climate and other sustainability questions cannot be seen solely through the prism of environmentalism. The fight for sustainability needs to incorporate dimensions of social justice, equity, and human rights.

The far-reaching impacts that a transition to a more sustainable society holds for the lives of billions of people implies that governance needs to be as democratic, transparent, and accountable as possible, and this imperative extends to the workplace. Unions find themselves on the defensive in many countries, but the labor movement needs to be an active participant in the transition toward sustainability. Beyond the demand for a socially
just transition that has become a rallying cry among union activists, Judith Gouverneur and Nina Netzer argue in Chapter 21 that a fundamental reorganization of work needs to be undertaken so that available work is better shared in a sustainable economy.

Sean Sweeney (Chapter 20) discusses the difficulty of transforming the energy system at a time when fossil fuel corporations push ahead with additional carbon-intensive projects. He argues in favor of greater “energy democracy” that gives workers, communities, and the public at large a more meaningful voice in decision making. Fossil fuel corporations are among the largest companies in the world. Like their counterparts in other sectors of the economy, they have acquired a “too big to fail” aura, yet they elude meaningful democratic accountability at a time when their decisions affect virtually everyone on the planet.

Beyond the energy sector, economic governance reforms could include accelerating the creation of so-called “benefit” corporations. Colleen Cordes (Chapter 19) examines this still-new phenomenon of companies that orient themselves toward a broader array of stakeholders, including their employees and the local communities within which they operate. Gar Alperovitz (Chapter 18) discusses the detrimental effects of large wealth and income gaps and notes that, because of the socialization of technological gains, those gaps are mostly undeserved by those at the top and the bottom—a point that even some mainstream economists concede. Community wealth-building strategies—including cooperatives, worker-owned firms, community development corporations, community development financial institutions, social enterprises, community land trusts, and employee-owned enterprises—can pool capital in ways that build wealth, create living wage jobs, and anchor those jobs in communities.

Finally, it seems clear that the antidote to the ills of concentrating wealth and power that are so instrumental in thwarting efforts to achieve sustainability is deconcentrating—devolving—wealth and power. Chapter 22, the concluding chapter, is a meditation on the material in this book and on the variety of political and economic means available to achieve that end. In particular, we argue that a more engaged citizenry is key, not only to the success of specific movements such as the resistance to the fossil fuel domination that drives climate change, but to all dimensions of sustainability. It is no longer enough for people everywhere to struggle for nominally democratic polities, and then to hand off power and responsibility for their ongoing operation and integrity to others. That seems inevitably to invite corruption and the appropriation of the machinery of governance for private ends.

People everywhere must strive to don the mantle of citizenship and commit to persistent engagement in the governing of their workplaces, com-
munities, and nations. Concentrated power and wealth will forever seek to fulfill only its own narrow interests—even as the biosphere and civilization are corrupted and perhaps destroyed. Only a steady popular commitment to engaged governance can prevent this outcome. The quest for environmental sustainability, social equity, and a deep, deliberative culture of citizen engagement are thus closely intertwined goals.
Sustainability is a socioecological problem. Although most of us never consider it, human society is embedded in, and completely dependent upon, the earth’s natural systems. Human economic activity takes place within the matrix of these systems, both influencing and being influenced by them. In general, for most of the two or three million years of our hominid history, our share of that influencing was minimal. But at some point in the not-too-distant past, we entered what has come to be called the Anthropocene period, a time in which the sheer number of human beings and the power of human activity to shape the biosphere have exploded and, in fact, have become the main drivers of deeply troubling planet-scale changes. These now-familiar trends—a warming atmosphere and oceans, accelerating species extinctions, and so on—threaten human welfare and perhaps even the viability of human civilization.

The irony is that this is all the result of people doing what comes naturally. As John Gowdy argues in Chapter 3, humans have evolved a complex mix of traits that includes cooperation as well as competition. Human cooperation and sociality were key to our evolutionary survival in a world of fierce competitors, many with claws, teeth, speed, and other traits that we could not match. Living in small bands of hunters and gatherers, our governance institutions were commensurate with our lifestyle, i.e., relatively simple.

But sociality also became our ticket to growing populations, colonization of most of the earth’s lands, and, beginning about 10,000 years ago, agriculture. When humans became farmers, we joined the small group of species (including ants and termites) that Gowdy calls ultrasocial. Ultrasociality is characterized by role specialization, information sharing, collective defense, and complex city-states, all in the service of production for surplus. In humans, ultrasociality has led to vast population growth, highly hierarchical societies, the domination of the planet, and an apparently perpetual mindset of More.
Once past the turning point to ultrasociality, governance was no longer simple—and we have been struggling with it ever since. As Gowdy remarks, “Ultrasociality is an evolutionary outcome, and evolution cannot see ahead.” We have only begun to be dimly aware that perhaps our evolutionary record has led us down a blind alley. Production for surplus on a planet of finite resources, the limits of which we are already crowding, is not a sound long-term survival strategy.

In this book, we use a broad definition of governance: the formal and informal mechanisms and processes that humans use to manage our social, political, and economic relationships with each other and the ecosphere. (See Chapter 2 by D. Conor Seyle and Matthew Wilburn King.) By that definition, our governance institutions are stumbling. Nowhere is this clearer than in our transnational failure to come to grips with climate change, a problem for which all nations are culpable (either in action or in aspiration, although some much more than others), which threatens all, and which requires cooperation among all to solve. But it is also evident in our collective indifference to rigorously maintaining the biological diversity that supports Earth’s web of life, in the large and widening gaps between the rich and the poor within and between many countries, in the continued marginalization of indigenous peoples, and so on.

Despite our fondness for the technologies that we are so good at inventing and our hammer/nail tendency to yearn for (and apply) technical solutions to our problems, the failure of the human sustainability enterprise cannot magically be corrected in that way. Alternative, more appropriate technologies do have a role to play. But a boundless faith in techno-fixes may mislead people to believe that we can actually squeeze still more resources out of the planet and get away with it. Or that, if bad comes to worse, we can somehow just (geo-)engineer our way out of the problem. Technology per se is as much the problem as the solution.

Nor will simply continuing to deepen our understanding of the complexities of the earth’s systems be enough. Never before in human history have we had access to so much data of all stripes as today. The Internet and the encroaching digitization of life have made accessing this information easy. But information does not equal knowledge or wisdom, even when it is essential information. As Monty Hempel points out in Chapter 4, for a variety of reasons ecoliteracy is necessary but insufficient to create action; in fact, at most universities that teach ecoliteracy it is consciously divorced from exhortations to act or from discussion of the ethical obligation to do so.

Finally, it now seems clear (particularly after the latest recession) that markets will not be riding to the rescue. Their operation without vigorous and conscientious government oversight clearly tends to be self-serving and often self-destructive. Market mechanisms are tools that need to be understood
and used wisely when appropriate; they are not equipped to run the show. Among the strongest champions of unconstrained markets are multinational corporations, which have demonstrated over and over that their size and power causes them to behave according to an internal logic of their own that is very often contrary to the public’s interests, and the planet’s.

The problem is also not a lack of institutions and mechanisms that can handle complexity, especially of the sort that requires revamping nearly the entire economic system. Think, for example, of the organizational acumen required among commercial operations that source raw materials or other inputs from far-flung places around the globe, and that maintain a finely timed flow of products and services delivered to consumers at the other end. Or consider the operations of postal services, handling the 346.5 billion letters that were sent worldwide in 2012—nearly 1 billion pieces daily. And even in the sometimes sordid world of politics, the machinery underlying democratic elections is a marvel to behold. Millions of votes are collected in the span of mere hours, and outcomes announced in almost no time, because modern societies have come to expect virtually instant results. It speaks to the efficacy of the underlying organization that instances when things do go wrong—like the infamous “hanging chads” of the 2000 U.S. presidential elections—are the exception rather than routine.¹

Appropriate technologies, ecoliteracy, markets in tune with the public good, organizational capacity—these are all indispensable tools in the quest for sustainability. And yet, they are not enough. The problem runs much deeper. We can only put ourselves on the path to sustainability by somehow applying what we know about good governance to the economic and political relationships that bind us to each other and to the planet we live on.

**Improving Governance**

A great deal is known about how governance fails to support sustainability and the ways it could be improved to do so more effectively. It is relatively easy, for example, to arrive at a definition of “good” governance in which most people could find much with which to agree. Conor Seyle and Matthew King, in Chapter 2, put it this way:
Whether concerned about human rights, legitimacy, or even sustainability, it appears to be the case that good governance systems need to be inclusive and participatory: they need to allow the members of the system to change the rules when needed, and have a voice in the collective decisions that are made…[S]ystems need to be accountable to processes that guarantee fair treatment and establish predictable rules that are applied equally to all members of the collective. And ultimately,…there need to be systems in place to resolve disputes and sanction those who would violate the rules and collective values of the group.

Governance, to be good, should be both efficient and legitimate, where legitimacy derives from the wide perception that the system is fair. Fairness demands equity in terms of how social and economic benefits and hardships are shared by different people, communities, and countries. But increasingly, fairness also depends on how well we respond to the worsening climate crisis so that the worst consequences are avoided for the next generations, that the costs of adjustment are shared in a reasonable manner, and that unavoidable impacts do not fall squarely on the shoulders of those who are least responsible for the calamity.

These underlying principles should not be in contention in any society that lives by defensible values. The more difficult question concerns what is needed to drive the governance process for sustainability forward. The chapters in this book examine not only the obstacles to this process, but also the multiple ideas and possibilities for needed change at different scales—from the level of individual ethics to the minutiae of international policy making:

**Personal.** Whether one lives in a lakeside villa or a mud hut, is a Wall Street financier or a subsistence farmer, is healthy or starving, one’s initial circumstances are an accident of birth. Whatever one accomplishes begins there, and to that extent the rich no more deserve their wealth than the poor deserve their poverty. There are no self-made men or women; every human alive is helped or hindered by the legacy bequeathed him or her by the society in which he or she lives. Even prominent mainstream economists have acknowledged that most of what each of us has is due more to the wealth and assets accumulated by previous generations than to our own efforts. (See Chapter 18 by Gar Alperovitz.)

This fateful truth imposes serious obligations on those who are born into wealth. People with the great good fortune to enjoy comfortable lives have deep ethical obligations, first to be aware of how very differently their lives could have gone, and second to heed the requirements of environmental justice. The first such requirement, observes Aaron Sachs in Chapter 10, is to do no harm. While it is impossible to live a perfect or impact-free life, we each need to do what we can to minimize our own impacts, help others
to achieve decent and sustainable lives, and push our own communities toward sustainability.

**Local.** Individual responsibility and action is indispensable, but action by individuals united into communities and movements is even more important. As Monika Zimmermann writes in Chapter 14, the current locus of activity on climate change and biodiversity preservation lies mainly within organizations of local and regional, not national, governments. Over the last 20 years or so, pioneering local governments have stepped forward on the global stage to assert their relevance to sustainability initiatives, exemplify commitments, provide and share resources, establish concrete metrics, track progress toward goals, and help spur national and international processes to do the same.

**National.** National governments have struggled to make collaborative progress on sustainability issues, particularly climate change, although there has been no shortage of good intentions, impassioned rhetoric, and meetings since the 1992 Rio Summit. Individual countries, with a few exceptions, have not done much better. In Chapter 11, Petra Bartosiewicz and Marissa Miley explore the congressional intransigence around climate change legislation in the United States (as well as providing an object lesson in how not to address such resistance, in the story of the U.S. environmental establishment’s efforts to pass a carbon cap-and-trade bill without first building strong grassroots support for it). The European Union’s carbon markets have so far proven ineffective due to a lack of government discipline in allocating permits. Sam Geall and Isabel Hilton, in Chapter 12, examine China’s fractured environmental politics and note that there is emerging support among networked citizens, nongovernmental organizations (NGOs), and journalists for the country’s ambitious green goals and regulations, but that structural problems, such as collusion between polluters and local officials, continue to block progress.

National governments need to do better, both in negotiations with other governments and in their own countries. The opportunities to do so are plentiful. Besides showing some spine in resisting industry efforts to undermine progress on climate, governments need to regain control of financial markets, demand corporate transparency and accountability, and sharply reduce the role of money in politics. (See Chapter 16 by Thomas Palley.)

Governments in general also can take a role in recognizing and sponsoring commons resources by means such as land trusts, cooperatives, and online peer networks for ecosystem monitoring (see Chapter 9 by David Bollier and Burns Weston), or by managing shared assets in the manner of the Alaska Permanent Fund, which allocates earnings from North Slope oil production.

**International.** Winston Churchill famously quipped in 1947 that “de-
mocracy is the worst form of government except all the others that have been tried.” The same could be said about the United Nations with regard to international governance. The UN certainly has displayed a degree of bureaucratic inertia at times, although the larger problem is that it is often shortchanged in terms of funding and political wherewithal by the very governments that expect it to provide solutions where purely national efforts fail. And yet an international organization that provides the space to work out cooperative approaches to the sustainability challenge is more indispensable than ever.2

As Maria Ivanova explains in Chapter 13, governments and UN officials have come to understand that the time for addressing environmental, economic, and social dimensions separately is long past. The need to weave these policy trends together closely has been recognized in recent efforts to restructure and reinvigorate the UN’s sustainability bodies, such as the UN Environment Programme.

In the same way that market mechanisms have been promoted on the national level, public-private initiatives are being pushed at the UN, sometimes in the form of a disconcerting “minilateralism” that regards self-selected groups of governments, corporations, and NGOs as key drivers. As Lou Pingeot reminds readers in Chapter 15, there is a need for much greater transparency and agreed-upon norms to ensure that minilateralism does not amount to an end run around multilateralism.

Finally, we must point out that many of the world’s governing systems are still heavily male dominated and thus reflect men’s values, priorities, and viewpoints much more than they do women’s. Just as the emergence of more democratic forms of governance has been a slow and difficult process, so is the effort to inject greater gender balance into governance. Governments might perform better if more women held positions of leadership, although the evidence so far on this question is inevitably thin, given the continued underrepresentation of women in executive political offices and in many legislatures. (See Box 22–1.)3

How?

All of the above, of course, is nothing more than a wish list. Just as it is easy to list all the technologies we should be deploying rapidly to stabilize the climate, it is easy to lay out everything that governments should be doing, or doing better, to make for a sustainable world in general. Both approaches beg the question: given the stark absence of adequate movement in the right direction already, how can we make it happen?

Without question, there is no silver bullet—no single approach that will miraculously achieve what has so far eluded the determined efforts of many people. Any approach that ultimately meets with success will have to incor-
For most of the history of civilization, it was unthinkable that women would help decide who would govern, much less themselves govern. Occasional examples of a reigning queen or empress were quirks of monarchical succession that scarcely dented men’s control of government. The past century, however, has witnessed the emergence of women voters in almost all countries. The last decade has seen a gradual rise—too gradual, many would say—of women’s leadership at multiple levels of government around the world. This development seems positive for governance with future generations in mind, especially if it accelerates from its currently slow pace of growth. But the evidence supporting this thesis is at best suggestive and indirect.

The numbers point to a significant emergence of women in governance and politics. Prior to 1960, women were absent from top national elective leadership, according to a timeline on women’s governmental leadership produced by the International Women’s Democracy Center. In that year, Sirimavo Bandaranaike became the world’s first woman prime minister, leading the government of Ceylon, now Sri Lanka. Within a few years, such dynamic presidents and prime ministers as Indira Gandhi in India, Golda Meir in Israel, and later Margaret Thatcher in the United Kingdom were gaining fame worldwide—and earning the reputation of being every bit as hard-nosed as the male leaders around them.

In recent years, women have achieved their nation’s highest office in dozens of countries. Incumbencies in late 2013 included Angela Merkel in Germany, Dilma Rousseff in Brazil, Geun-hye Park in South Korea, Cristina Fernández de Kirchner in Argentina, Joyce Banda in Malawi, Ellen Johnson Sirleaf in Liberia, Laura Chinchilla in Costa Rica, and Dalia Grybauskaite in Lithuania. Kosovo, not universally recognized as an independent nation, has as its president Atifete Jahjaga.

In the United States, meanwhile, the only Democrat widely treated in the news media in late 2013 as a likely standard bearer in the 2016 election was former secretary of state Hillary Rodham Clinton, with Massachusetts senator Elizabeth Warren gaining attention as the most likely rival for her party’s presidential nomination. This rivalry (at least as presented in the national media) suggests how routine it is becoming to consider that a woman could become president of the United States.

Yet in a world with 193 United Nations member states, the share of presidents who are women remains far from proportional to the share of women in the world’s population. And despite gains at parliamentary, ministerial, and other levels of government, women are still vastly outnumbered in wielding governmental power. The authors of a 2007 UNICEF report concluded that at then-current rates of growth, “gender parity in national legislatures will not be achieved until 2068.” Some countries still lack any women either sitting in national legislatures or carrying ministerial portfolios.

The situation appears to be comparable in corporate leadership and governance. After an initial advance in the 1970s and 80s into what was for centuries a male-only culture, women remain a small minority of chief executive officers. Just 22 CEOs among U.S. Fortune 500 companies in mid-2013 were women, according to Bryce Covert, economic policy editor for the Center for American Progress’s blog ThinkProgress. Among executive officers generally, just 15 percent were women, while women comprised about 17 percent of corporate board members, according to a recent survey of the same companies by Catalyst, a research and advocacy nonprofit working to expand women’s leadership.

continued on next page
Box 22–1. continued

Just one parliament—that of Rwanda—today has a majority of women members. (See Figure 22–1.) And even this example owes much to a controversial device used to jumpstart gender equity in civil governance: quota systems for candidates or sitting legislators. Critics argue that such systems weaken the equality of political opportunity, while supporters counter that they are the only way to hasten the day when government mirrors the gender balance of population. Most nations seem to agree with the supporters. According to the Quota Project, an academic and intergovernmental collaboration, more than half of UN member states have enacted some type of political gender quota system, whether voluntary by political parties or mandatory by candidacies or even reserved legislative seating. Representation of women in corporate executive suites and boardrooms improved in Norway, Spain, and Sweden after the governments of these countries set targets for such gender balance, according to Covert.

Whether women in government are more likely than men to endorse policies that promote environmental sustainability is unclear. The authors of the UNICEF report found that women policy makers are much more likely than their male counterparts to support children’s well-being—a possible proxy for interest in sustainability—as well as nonviolent resolution of conflict. There is at least a smattering of evidence supporting the presumption that women on average are more collaborative and less competitive than men, and are more worried about environmental unsustainability as well. Future research may bolster a hopeful thesis about gender equality in governance: that it will make governments more likely to work with the governed to build civilizations that respect biophysical laws and still find ways peaceably to prosper and endure.

—Robert Engelman and Janice Pratt
Worldwatch Institute
Source: See endnote 3.
corporations) are pushing in the wrong direction, an opposing vector can come only from the people.

Sustainability by diktat seems unlikely, given the interests—self-preservation, first and foremost—and track records of autocratic regimes in general. Sustainability therefore seems to require something like democracy, or at least a strong democratic impulse. A democracy of distributed leadership (as opposed to one that begins and ends with the ballot box) seems to be the natural home—if such a new idea as sustainability can be said to have one—for sustainability efforts. (See Box 22–2.) Where democracy is already in place, citizens and civil society organizations need to take advantage of their existing freedoms to organize, protest, deliberate, offer input to governments, and demand action. Where democracy is mainly for show or simply absent, safer tactics are required. The goal is the same: to create the irresistible force needed to elicit a positive response.4

Regardless of location, this is a difficult thing to do. It requires a long-term, bottom-up approach. Only a sustained mass movement has any hope of generating countervailing power to the forces that are driving the current unsustainable system. It will require courage, passion, and dedication of the sort seen in the Arab Spring uprisings and the Occupy demonstrations, but those alone are not enough; passion will burn out if it cannot be supported with dogged and determined grassroots organizing, through civil society organizations, unions, community groups, cooperatives, and concerned citizens everywhere. It is both the passion of the moment that brings people into the streets for demonstrations and the determination for the long haul that is required to make citizen empowerment a reality.

It would be naïve to assume, however, that the prospects for such a development are good or that the risks are negligible. Grassroots organizing of the sort needed may never happen or just not succeed. The physical risks in many places are significant. Such organizing will take lots of time—years, perhaps decades. During that time, many bad things are bound to happen socially and environmentally, given worsening inequality or the impacts already loaded into the climate system. And these divisive developments in turn may well lead to further repercussions that render a cooperative approach ever harder. Bottom-up organizing may be informed by values and intentions that are anything but “liberal” and “internationalist,” and could instead very well end up being chauvinist, xenophobic, inward looking, or violent.

Ultimately, it seems to us, all governance begins with individuals-in-communities. Humans are no more isolated actors in politics than they are the independent molecules of mainstream economic theory. The impetus or pressure to improve governance, at every level, can come only from awakened individuals dedicated to making their communities sustainable places. From there, it may be possible to build communities of communities in a
In modern nation states, democracy seems to be the most widely preferred form of government. This impulse has expressed itself again and again, most recently perhaps in the Arab Spring uprisings in the Middle East. The last quarter century has witnessed a proliferation of governments that are at least nominally democratic.

The inherent appeal of distributed and accountable power no doubt explains much of this, and is surely among democracy’s strongest justifications. Is democracy also biased toward sustainability? That is, are democratic nations more likely to be sustainable than those run by other forms of government? Further, would deepening democratic engagement lead to more vigorous pursuit of sustainability? Can that deepening be accomplished outside of political theory textbooks, in the real world?

In all cases, the answer appears to be “maybe.”

Strictly speaking, relatively few countries (and none in the industrialized world) are now sustainable no matter how they are governed, if that means living within per-capita carrying capacity. So to explore these questions, we have to settle for which forms of government seem most conducive to sustainability or active in pursuing it. Here, the evidence—somewhat tepidly and with many qualifications—seems to support the claim that democracies are better than autocracies or mixed forms.

There are several dimensions to this. For example, democracies are probably better equipped to cope with climate adaptation, as power inequalities tend to be less extreme and the poor are therefore less likely to suffer from related environmental harm. Democracies are generally better at disaster response (notwithstanding conspicuous counter-examples such as Hurricane Katrina in the United States), a capacity that will become more significant as a warming climate increases weather extremes. This responsiveness arises mainly from the greater need of elected leaders to answer to voters. For example, Peru suffered devastating earthquakes in 1970 and in 2001; the first killed 66,000 people, the second fewer than 150. The vastly greater 1970 death toll was due partly to higher population density, but mostly to the unresponsiveness of the ruling dictatorship compared with that of the democratically elected government 40 years later.

However, the broad, creeping challenges of sustainability, such as planetary warming and biodiversity loss, to date have not evoked the same sort of response. As political scientist Peter Burnell writes, “[w]hatever other aims democracy might serve, increase in the number of democracies does not seem an obvious solution to global warming, especially if democratization actually promotes material economic advance.”

Voters everywhere are understandably concerned about their material well-being, and the very accountability that spurs democratic governments to rush aid to disaster sites also can lead them to privilege economic concerns, especially short-term ones, above all others. If voters do not clearly demand action on problems (such as climate change) that may, or may be seen to, compromise economic performance, then politicians in democratic systems have little incentive to act on those issues. For democracies to address climate change, voters—or rather, citizens, because voting is not nearly enough—must create the impetus. All the more so because, as David Orr has noted, representative democracies tend to become “ineffective, sclerotic, and easily co-opted by the powerful and wealthy” and are vulnerable to “ideologically driven factions that refuse to play by the rules of compromise, tolerance, and fair play.” Perhaps even more dangerously, they can succumb to “spoiled-child psychology” that invites, in philosopher Richard Weaver’s words, “a sort of contempt for realities.”

If people in representative democracies...
are contemptuous of realities, surely that has to do with their twofold isolation: from each other as political actors and from the governing processes meant to address those realities. A possible antidote to both is deliberative civic engagement (DCE), a process encompassing a variety of forms of deeper democracy that go far beyond voting to involve ordinary people in the process of collectively assessing, confronting, and solving governance problems. According to Matt Leighninger of the Deliberative Democracy Consortium, successful DCE initiatives are usually marked by:

- the bringing together of a large and diverse group of citizens,
- structured and facilitated small-group discussions combined with larger forums aimed at action,
- the opportunity for participants to consider a range of arguments, information, and policy options, and
- a final focus on concrete outcomes.

DCE initiatives have sprung up around the world, in Australia, Brazil, China, India, Nigeria, the Philippines, and South Africa, as well as in Europe and North America. Could this approach help address sustainability issues? It’s an open question, but DCE has everywhere arisen as a response to urgent political and economic problems. While sustainability is a global challenge, it manifests itself in many local forms and concerns as well as in planetwide effects such as warming. To the extent that DCE becomes known as a useful approach to solving community problems, it could well take root and provide fertile ground for a culture of engagement and more permanent citizen’s bodies capable of tackling problems that operate at wider scales.

Each year, the repeatedly disappointing results of the annual high-level international meetings on climate change remind us that the world’s democracies are just as stuck in dealing with sustainability as everyone else. Yet the existing research suggests that other forms of governance offer even worse prospects of coming to global grips with climate change and the other crises of sustainability. The rapid expansion of democracy around the world thus seems to offer the only kernel of hope for breaking the logjam. It is worth noting that this expansion is relatively new, having begun in earnest only in the early 1990s. Also worth noting is that most of the action on climate change seems to be taking place at the local and regional levels, where governments are closest to the people and less likely to be captured by special interests. (See Chapter 14.)

As for DCE, it has been employed mostly in temporary exercises, so it remains to be seen whether it can be established as a widespread standing practice with routine input into official decision-making processes, or perhaps even standing citizens’ bodies with statutory power. There are historical examples of such bodies from hundreds or even thousands of years ago, but relatively few contemporary ones.

The potential of deliberative civic engagement is great, but it takes practice. In most cases, our deliberative muscles are not so much atrophied as never developed. Yet citizens have often proven to be committed and knowledgeable enough to take part in DCE. Research and accumulating experience are beginning to clarify which forms of DCE work best, in which circumstances and with which groups. And DCE has been found to increase citizens’ civic skills, involvement, and interest in political issues, with corresponding impacts on policy. Human-authored solutions to sustainability problems seem unlikely to emerge without those—indeed, they may be the only way of deepening the responsiveness of democracies to citizens’ wishes and harnessing it to the pursuit of sustainability.

—Tom Prugh

Source: See endnote 4.
way that affords every person on Earth a safe and fulfilling place to live, and offers future generations the same prospect. Proceeding along this course, it seems to us, is better than surrendering to the centrifugal and destructive forces now at play in the world. Perhaps Herman Daly and John Cobb, writing nearly 25 years ago in *For the Common Good*, put it best:

On a hotter planet, with lost deltas and shrunken coastlines, under a more dangerous sun, with less arable land, more people, fewer species of living things, a legacy of poisonous wastes, and much beauty irreversibly lost, there will still be the possibility that our children’s children will learn at last to live as a community among communities. Perhaps they will learn also to forgive this generation its blind commitment to ever greater consumption. Perhaps they will even appreciate its belated efforts to leave them a planet still capable of supporting life in community.⁵
The scientists have told us what we need to know about climate change. Now, as this fascinating volume makes clear, it’s time for the political scientists to step up and, more importantly, for all of us in our role as citizens to make sure that we replace our ruinous energy oligarchy with a vibrant, sustainable, and just democracy.

— BILL McKIBBEN, Founder, 350.org

This book is a manifesto of practical hope published in the shadow of accelerating environmental catastrophe. It tells us that we do not have to sit on our hands and close our eyes as we wait for the deluge. Instead, we can govern and lead with some courage in the interest of all humanity.

— SENATOR JAMIE RASKIN, Maryland State Senate Majority Whip and Professor of Constitutional Law, American University

“In my four decades in government and public life, I have seen first-hand most of the flaws in national and international governance that this trenchant book critiques. Its suggestions for improving the ways we manage our relations with each other and with our planetary home are provocative yet clear-headed, and—if only we implemented them—would likely put us on the path to true sustainability.”

— TIMOTHY E. WIRTH, former US Senator, the first Under Secretary of State for Global Affairs, and founding President of the United Nations Foundation

Today’s sustainability crisis is much more a political problem than a technical one. We have countless options to address even our most alarming environmental challenges, from water shortages to climate change. But we have failed to act; ultimately, we have failed to govern. Yet we can now choose to govern responsibly.

THE WORLDWATCH INSTITUTE, in this 40th-anniversary edition of its flagship publication, analyzes failures of our political and economic systems, and opportunities to improve governance, locally and globally. From grassroots campaigns for fossil fuel divestment and “energy democracy” to the spread of responsible corporate charters, State of the World 2014 illustrates how people worldwide are reclaiming the mantle of citizenship and creating political change for sustainability.